

ABSTRACT

Highly-qualified crystals are grown with good yield under an optimal temperature condition by controlling the axial temperature distribution in the vicinity of the seed crystal locally. In an apparatus for producing crystals to grow crystals wherein a seed crystal 14 is placed in a crucible 11 which is retained in a furnace, raw materials 12 filled in the crucible 11 are heated and liquefied, and a raw material 12 slowly cooled in the crucible 11 from below upward, the apparatus comprises means for controlling temperature to cool or heat the vicinity of the seed crystal 14 locally. The temperature control means controls the temperature by a hollow constructed cap 17 mounted outside the portion of crucible 11 and regulates refrigerant flow running through the hollow portion.